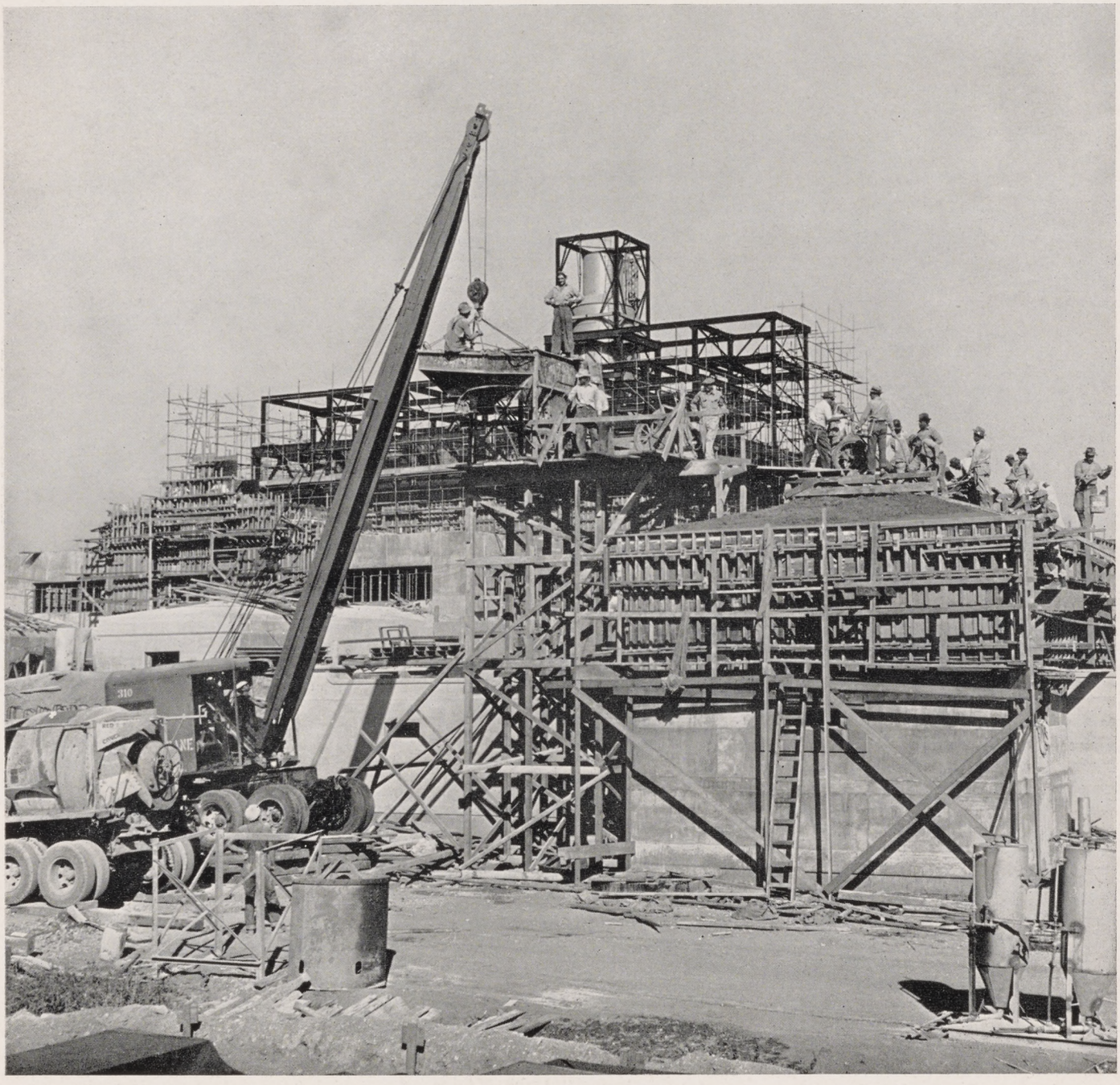
• COLORADO RIVER •

AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Vol. VII. SEPTEMBER 25, 1940 No. 9



Concrete crew placing roof slab on the zeolite softening building at the water softening and filtration plant. This is one of the many scenes of bustling activity at the big plant.

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AQUEDUCT NEWS
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

306 WEST THIRD ST.
LOS ANGELES, CALIFORNIA

Published monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. VII September 25, 1940 No. 9

Increased Demand For Parker Dam Power Reported

Although more than a year's work remains before the Parker Dam power plant will be ready for operation, the demand for power in areas that can be served by the plant has grown to such an extent that serious consideration is being given to bringing the plant to its full capacity as a part of the present construction program.

Recent information received by officials of the District indicates that the Federal Government is completing negotiations to supply Parker Dam power to Tucson and the Coolidge Dam areas, both in Arizona, as well as the areas in Arizona for which negotiations have already been completed. It is also understood that tentative negotiations have been started for the purchase of Parker Dam power by the Imperial Valley Irrigation District in California.

As a part of its contract with the Federal Government, under which the Metropolitan Water District provided the funds for the construction of Parker Dam, the District is entitled to one-half of the electric energy that can be created at the dam. Although some of the power house foundations were built at the time Parker Dam was constructed, it was not expected that the power plant itself would be constructed for quite a number of years after the dam was placed in operation.

However, a prolonged period of drought in Arizona created a scarcity of water in reservoirs in that state, which in turn caused a serious power shortage in central Arizona. In order to meet this situation the Federal Government has begun the construction of the power plant at Parker Dam. Because the emergency need for power had to be met before the Parker Dam power plant could be completed, the Government

(*Continued on Page* 8.)

Placing centrifugally-cast concrete pipe on the waste-water disposal line which leads away from the softening and filtration plant. This is one of the many pipe laying jobs now in progress on the distribution system.

– DIRECTORY –

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Transmission....Robt. N. Allen
Maintenance.....W. J. Neale
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SUPERINTENDENTS
(Main Aqueduct Tunnels)
San Jacinto Tunnel, District Force Acct., B. C. Leadbetter, Gen. Supt.

Softening and Filtration Plant
Griffith Company. Weymouth Crowell Co., Project Manager, Olen Evans. Field Supt.

Waste Water Disposal Line
United Concrete Pipe Corporation
Schedule 29P
American Concrete & Steel Pipe Co.
Schedule 30SC
J. F. Shea Co., Inc.
Hollywood Tunnel
J. F. Shea Co., Inc.
Schedule 31P
United Concrete Pipe Corp.
Schedules 32CI, 33CI
Artukovich Bros.
Schedules 34P, 35P, 36P
American Concrete & Steel Pipe Co.
Schedule 37SC
Macco Construction Co.
Schedules 38SC, 39A
Werner & Webb
Schedule 40A
Warren Southwest, Inc.
Schedule 41P
American Concrete & Steel Pipe Co.
Orange County Reservoir
C. G. Willis & Sons, Inc., and Charles G. Willis.

Last of Principal Contracts Awarded

The last of the principal contracts to complete the initial construction of the Distribution System were awarded by the District's Board of Directors at its meeting on September 6.

At that time the Board awarded a contract to the American Concrete and Steel Pipe Corporation, at its bid price of $85,790.50, for the construction of a lateral extending the distribution system into the City of Long Beach. This schedule, No. 41P, consists of 0.99 mile of pipe line to be constructed of 30-inch diameter lock-joint steel cylinder reinforced precast concrete pipe, and is to be built under Specifications No. 342. The contract also includes the construction of a chlorination meter station at the Palos Verdes Reservoir.

On September 6, the Board also awarded a contract for the construction of the 200-acre foot capacity Orange County Reservoir. This reservoir, which will be an operating feature of the Orange County feeder line, will be built in the vicinity of Brea in Orange County. The contract was awarded to C. G. Willis & Sons, Inc., and Charles G. Willis, at a bid price of $108,490.00. The work, to be done under Specifications No. 341, includes excavation, rolled fill embankment, and gunite lining for the reservoir, and the construction of appurtenant structures.

J. F. Shea Co. crews get underway with excavation for the pipe line on Schedule 30SC, a part of the Glendale-Burbank feeder.

With all major contracts now awarded, construction work is advancing at a rapid pace in all sections of the area covered by the Distribution System.

Near La Verne, work on the water softening and filtration plant is getting along toward completion. Construction of most of the major structures and buildings has reached final stages, and from now on most of the work will be in connection with the installation of equipment. Of the major items in which visible progress can be seen by the average visitor, the progress reports show that earthwork is more than 90 per cent completed; concrete about 90 per cent completed; structural steel 98 per cent erected; and the placing of reinforcing steel more than 90 per cent completed. At the present time approximately 330 contract employees are working on the plant construction.

Good progress is also reported on the various schedules that comprise the Santa Monica feeder, the Orange County feeder, and the waste water disposal line from the softening plant. On the Santa Monica line, pipe laying is progressing rapidly on both Schedules 29P, and 30SC, which are in the vicinity of Glendale and Burbank. As of September 20, 4,400 feet of pipe had been placed on the former, and 3,000 feet of pipe had been laid on Schedule 30SC. Construction of the 780-foot pipe line crossing the new Cahuenga Freeway was completed on September 19.

Reports from the Hollywood Tunnel show that on September 20, a total of 2,220 feet of the 3,729-foot tunnel had been excavated. This work is proceeding from two headings.

(*Continued on Page* 8.)

It's a question of pulling in your ears and holding your breath when trains pass in the narrow confines of the Hollywood tunnel. Picture shows the little locomotive used to haul muck trains in the 7-foot diameter bore.

MONTHLY REPORT REVIEWS ACTIVITIES ALONG THE AQUEDUCT LINE

(EDITOR'S NOTE: The following is a brief summary of some of the activities of the District as set forth in the monthly report of General Manager F. E. Weymouth, filed with the Board of Directors in September, covering work done in August.)

Legal Division

All necessary documents to secure payment for Interim Certificate No. 101, in the denomination of $756,000, representing bonds heretofore sold to the R.F.C., were prepared. Payment for said certificate was made August 9, 1940.

Miscellaneous Activities Division

During the month of August, 1940, 311 labor employment applicants were cleared for work on the aqueduct. Of this number, 15 were made available for force account work, and 296 were made available for aqueduct contractors. Identification certificates were issued to 172 applicants. The net turnover for all positions for July, 1940, was 2.86 per cent as compared with 0.76 per cent for the same month in 1939.

Main Aqueduct

Salvage Division Operations — Stock appraised and transferred to the Banning Salvage yard during August amounted to $2,488.73, making a total to date of $2,360,969.31. Sales during August amounted to $16,703.74. Total of salvage disbursements to date amounts to $1,443,240.83.

Parker Dam Power Plant—The contractor completed the construction of the four penstock tunnels and, except for final trimming, completed the forebay excavation. The contract excavation for the power house foundation was 85 per cent completed. The Bureau of Reclamation forces placed concrete in the river wall of the power house adding a 10-foot lift to the concrete previously placed at the power house site cofferdam.

Electrical Engineering Division

Pumping Plants—The pumping plants were operated on a construction schedule from the 1st to the 15th of the month to supply water for testing and conditioning aqueduct structures, and 5,831 acre-feet of water were pumped into the main aqueduct west of Hayfield. During the month 29,605,310 kilowatt hours of electrical energy were transmitted from Boulder into the District's system, of which 10,938,200 kwhr. were used in pumping in the main aqueduct and 16,984,800 kwhr. delivered to the Salt River Valley Water Users' Association for a credit of approximately $35,000 on the District's power bill. From August 16 to the end of the month, pumping operations were suspended, and operators given their annual leave.

Civil Engineering Division

Design — Designs for the Orange County Reservoir, including gates and gate structures, were finished, and designs were revised for the Long Beach lateral extension. Designs of electrical control panel boards and wiring were completed for the water softening plant.

Specifications—During the month a total of 11 sets of specifications were completed and issued, including No. 341 for the Orange County Reservoir, and No. 342 for the Long Beach lateral extension, and bids were opened on three sets of specifications including No. 340 for the construction of lateral pipe line extensions in the cities of Burbank, Compton, Torrance.

Distribution Division

Field and Office Engineering—The Palos Verdes Feeder south of the Los Angeles River was checked for leakage and the loss was found to be negligible. Contract drawings for the Orange County Reservoir were completed and revised plan-profile drawings were prepared for the readvertisement of the Long Beach lateral extension. Studies and estimates were made relative to serving Colorado River water to the coastal areas of Orange County.

Contract Work — On the softening plant construction operations were continuous during the month, and on August 13 pipe laying was started on the waste water disposal line. On Schedule 29P, excavation work was started on August 2 at the west end of the schedule near Glendale Ave. On August 27, the contractor began the excavation of trench for Schedule 30SC at Kenneth Road and Verdugo Ave. in Burbank—the west end of the schedule.

Purchasing Division

A total of 365 purchase orders were issued during August, covering purchases amounting to approximately $32,000. Carload forwardings totaled 30, of which 26 were cement.

Accounting and Costkeeping

The total cost of the work accomplished to August 31, 1940, was $185,470,584.73.

SOUTH COAST AREAS ACCEPT DISTRICT ANNEXATION TERMS

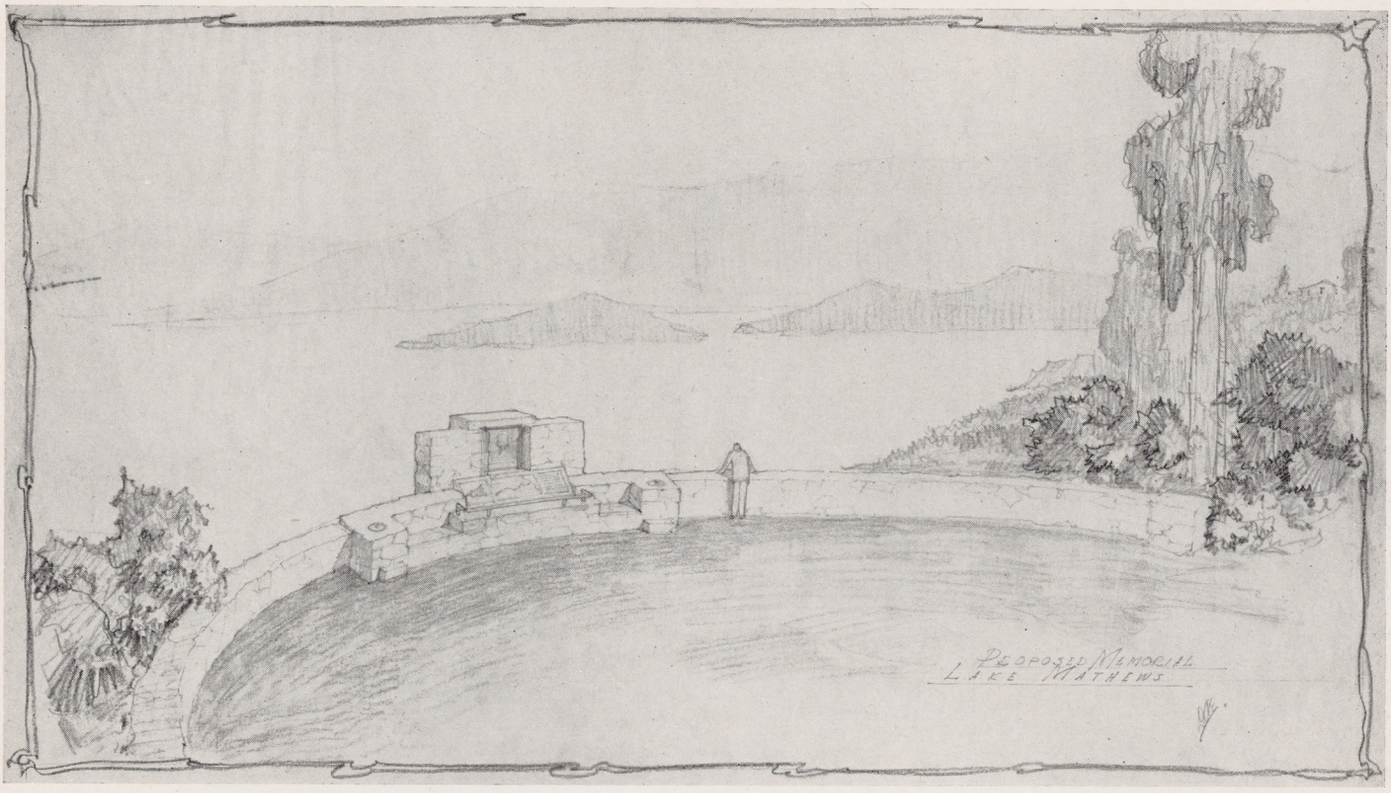
The District's Board of Directors has received resolutions adopted by the respective boards of directors of the Laguna Beach County Water District, and the South Coast County Water District, indicating that these two bodies have gone on record as accepting the terms for annexation to the Metropolitan Water District that were offered by the M.W.D. in the latter part of August.

SECOND EDITION OF "HISTORY" OF DISTRICT NOW BEING COMPILED

Covering the construction progress on the aqueduct and the activities of the District for the two-year period from July 1, 1938, to June 30, 1940, a second edition of the History and Report of The Metropolitan Water District of Southern California is now being prepared, and is expected to be available for distribution in the early fall.

The second edition of this report is expected to be of decided interest to those making a detailed study of the activities of the District, since it covers the period which saw the holing through of the San Jacinto Tunnel, the beginning of operation of the Intake Pumping Plant, the completion of construction of the main line of the aqueduct, and the arrival of the first Colorado River water in Lake Mathews on the coastal plain of Southern California.

A section of precast concrete pipe goes into a trench where it will become a part of the Glendale-Burbank feeder. The work is on Schedule 29P, being constructed by The American Concrete and Steel Pipe Co.



Above is an architect's sketch, prepared by Dan Elliott of the Design Division, of the memorial being constructed on the edge of the terminal reservoir of the aqueduct to honor the late W. B. Mathews. Dedication of the memorial is set for October 26.

Plans Made for Formal Dedication Of Lake Mathews In Next Few Weeks

Plans are being completed for the formal dedication of the terminal reservoir of the Colorado River Aqueduct in honor of the late W. B. Mathews.

Work is being pushed at the present time on the building of a memorial wall and bronze plaque which is to be unveiled as a part of the dedication ceremony. An artist's sketch of the proposed memorial is reproduced above. The wall is being constructed around a natural observation point which can be reached by automobile and which overlooks the beautiful body of blue water that is the terminal reservoir of the main aqueduct.

Although definite plans as yet have not been announced, it is expected that a brief ceremony honoring Mr. Mathews will be held at this memorial in the early part of November. Members of the District's Board of Directors and Staff, officials of the 13 M.W.D. cities, and people associated with Mr. Mathews during his lifetime will be invited to participate in the dedication.

The large stone block which will make up the central part of the memorial wall will hold a bronze plaque on which will be a bas-relief bust of Mr. Mathews. Below this, also in bronze, will be bas-relief models of the Colorado River Aqueduct system and of Lake Mathews. Benches are being constructed in the wall on either side of the plaque, and the memorial will also contain fountains from which visitors may drink Colorado River Aqueduct water from the terminal reservoir.

As well as officially dedicating the lake, the earth-fill dam and dike which form the body of water will be given the name of Mathews Dam and Mathews Dike as a part of the dedication ceremony.

W. B. Mathews died on December 9, 1931. At the time of his death he was the General Counsel for the District. Mr. Mathews was born in Ohio in 1865, and was educated in Kentucky and New York. He took up his residence in Southern California in 1889.

In public life W. B. Mathews served as City Attorney of Los Angeles, as Special Counsel for the Department of Water and Power of the City of Los Angeles, and as General Counsel for the Metropolitan Water District.

In 1902 he drafted the charter amendments that provided for the establishment of the Los Angeles municipal water and electric systems. He was a leader among the first small group of men from Southern California who advocated the construction of a high dam at Boulder or Black canyon on the Colorado River. In consultation with Senator Hiram Johnson and Representative Phil Swing, he drafted a large part of the Boulder Canyon Project Act.

Recognizing the urgent need of Southern California cities for Colorado River water, he guided the drafting of The Metropolitan Water District Act, which made legally possible the formation of The Metropolitan Water District of Southern California and the construction of the Aqueduct.

In proposing that the terminal reservoir of the Colorado River Aqueduct be named in honor of Mr. Mathews, the District Board in a resolution stated:

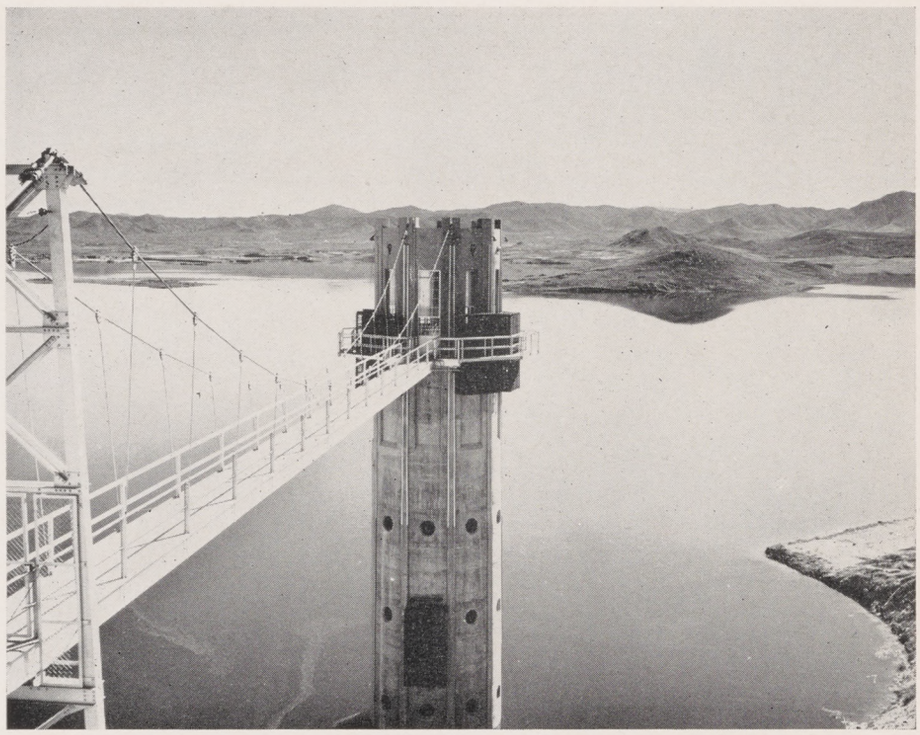
"Many of those who are intimately familiar with the history of the long struggle to secure the Boulder Dam and other national legislation pertaining to the development of the lower Colorado River are firmly convinced that, more than any other contributing factor, it was the legislative genius and self-effacing leadership of W. B. Mathews that made possible this long step forward in the control and conservation of one of the nation's greatest natural resources."

Origin of the Name of Parker Dam

Although most of the aqueduct clan were too busily engaged in construction activities to wonder much about the names of the various sections of the aqueduct—there have been many queries as to the why and how of names such as Parker, Bill Williams River, Eagle Mountain, Pushawalla Canyon, and others which have long been associated with the Colorado River Aqueduct.

The answer to at least one of these queries was published in the August issue of the Reclamation Era, the official publication of the United States Bureau of Reclamation. In referring to Parker Dam the Reclamation Era states that Parker, Arizona, after which the dam was named, took its name in 1905 from Frank Parker—a civil engineer surveying for the Arizona & California Railroad Company.

Parker, Arizona, has an interesting background in that it is located near the center of the Colorado River Indian Reservation where a number of tribes of Indians have lived for centuries. In 1867, the first chapter in history of an irrigation project undertaken by the United States Government was written here. On March 2, 1867, Congress appropriated $50,000 for the construction of an irrigation system from the Colorado River over the bottom lands of this reservation.



This picture, and the one at the bottom of the page, graphically illustrate the tremendous amount of Colorado River water that has poured into Lake Mathews in recent months. Notice that in this picture, taken in December, 1939, the water surface was below the third row of outlet ports.

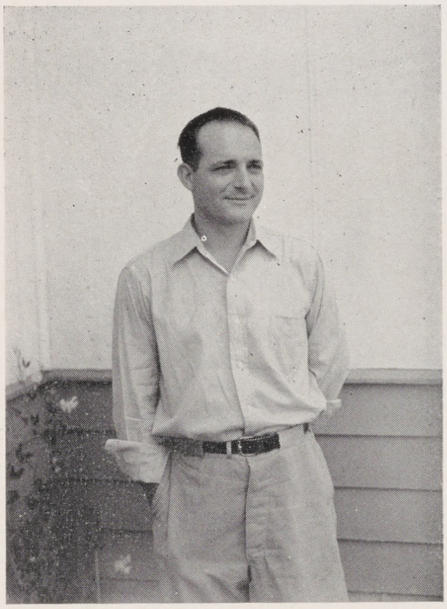
George W. Dent, a relative of President Grant, was appointed Superintendent of Indian Affairs, and on December 16, 1867, he employed native Indians with picks and shovels and started the task of building a main canal approximately 12 miles long. A natural headgate was made by tunneling through a large out-cropping of rock which is now referred to as Headgate Rock. All aqueduckers who worked on the east end of the aqueduct and on Parker Dam are familiar with this landmark which juts out into the river a few miles below Parker Dam. The U. S. Indian Service is now constructing the Headgate Rock Dam at this point to provide additional water for irrigation purposes on the Indian Reservation.

The original work was accomplished with but very little aid of mechanical equipment, and on June 16, 1874, the first Colorado River water was delivered for irrigation purposes on a Government project.

The Reclamation Era also tells of the early day transportation facilities which were used in the Parker area. Between 1867 and 1882 mail and supplies were delivered from Yuma, 140 miles down stream, by steamboat on which wood was burned for fuel.

Compare the water surface in this picture, taken in September, 1940, with the surface of Lake Mathews as it appears in the picture at the top of the page. The rows of ports on the tower are 17 feet apart. At the present time the big terminal reservoir contains approximately 70,000 acre feet of Colorado River water.

NEWS FROM FIELD AND OFFICE



One of the principal citizens of the main aqueduct is Benny Lamm, Shop Foreman for the Aqueduct Maintenence Division. Benny, who makes his headquarters at Iron Mountain, first went to work for the District in the L. A. Garage in 1934 and later worked at Morongo and Yellow camps on the Coachellas.

An event which missed the last issue of the NEWS was the arrival on August 25 of Daniel Rhodes Rule in the Rhodes Rule family. His papa is a member of the aqueduct clan of long standing who at the present is employed in the Hydrographic Division and who makes his headquarters at Banning. The new Rule weighed in at 7 pounds 4.5 ounces. Papa has recovered.

* * *

Wedding bells rang out on September 7 to announce the marriage of Helen Grous and Joseph R. Sherer. Helen Grous is well known to the aqueduct clan, having been with the District since January, 1933. She is employed in the Mails and Files Division.

* * *

Garland Gray is now an Assistant Engineer in the Distribution Division. Garland has been with the District since 1934 and has spent his entire aqueduct career on the main aqueduct until the time of his transfer.

* * *

News of another ex-aqueducker comes in a newspaper report stating that Will Fox is now the vice-president and general manager of the American Aircraft Company. "Bill" Fox was for many years the official photographer for the District and was known personally by thousands of aqueduct construction workers. His company is manufacturing both airplanes and motors of a type suitable for military training purposes.

Aqueduct Temperatures
August 16 to September 15, 1940

	Max.	Min.
Gene Pumping Plant	113°	69°
Iron Mt. Pumping Plant	111°	66°
Eagle Mt. Pumping Plant	111°	66°
Banning	105°	50°
Lake Mathews	99°	54°

* * *

Another marriage on September 7 was that of Jean Patricia Johns and Berne E. Miller. Berne Miller will be remembered by old-timers of the Distribution Division, Purchasing Division, and Potrero Shaft of the San Jacinto Tunnel. Berne is now 1st Lieut. Miller, Coast Artillery Corps, U.S.A. He has been on active duty with the army (anti-aircraft artillery) since March of this year, and at present is stationed at Fort MacArthur, California.

* * *

Of interest to pumping plant employees and visitors to the main aqueduct is the announcement that the District will maintain a motion picture projector at the Gene Pumping Plant to show various aqueduct motion pictures and other films. The projector has an interesting history in itself, since it was originally purchased by the Employees Association for use in the Berdoo Hospital on the Coachella Tunnels.

This aqueducker is busily engaged in chipping away the plaster mold which formed the big concrete seal of the District which adorns the administration building at the water softening plant.

Vince Preis, of the Aqueduct Maintenence Division, sits behind the wheel of his desert chariot. At the time this picture was taken, one of his jobs was to operate the "candy" wagon between Banning and the river.

* * *

In spite of the fact that he has spent most of his life on heavy construction work, one famous ex-aqueducker is at heart still a poet. He is Charles Thomas, Jr., who was well known as a foreman on the construction of the San Jacinto Tunnel, and who is now employed on the construction of the new Parker Dam power plant. Along with excavating tunnels on the main aqueduct, Charley Thomas tossed off many a sonnet and cadenza re the trials and tribulations of the aqueduct builders. His latest work was recently published in the Parker (Arizona) Post, in which he will edit a poet's column.

* * *

A recent visitor at the District's water softening and filtration plant was Mr. K. Subrahamanyan, Engineer of the Division of Sanitary Engineering of Ceylon. Mr. Subrahamanyan has been in the United States on a Rockefeller Foundation fellowship studying and inspecting sanitary developments throughout the country.

Parker Dam Power

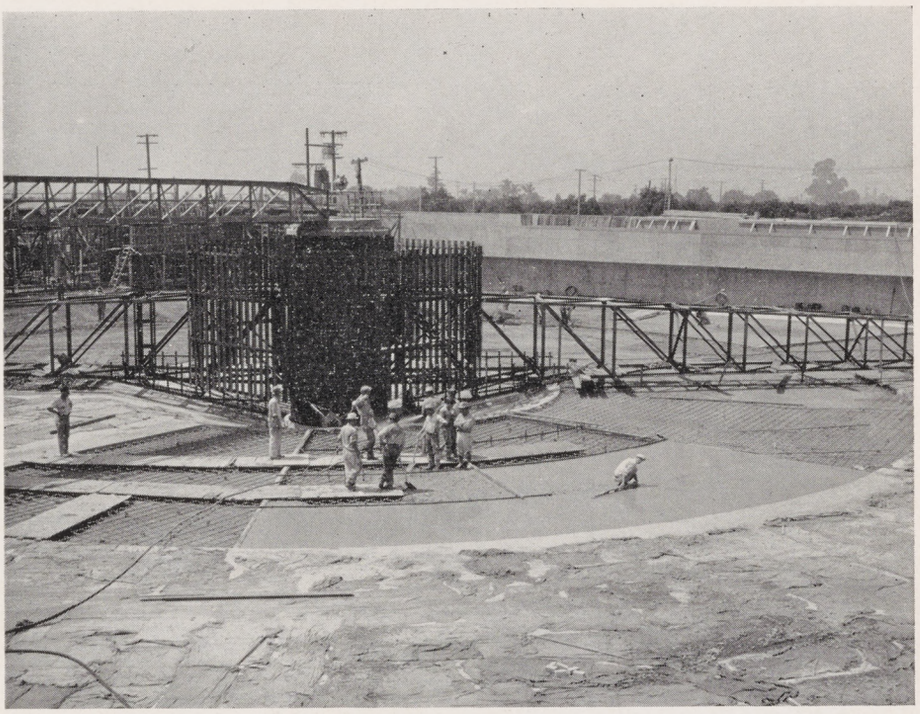
(*Continued from Page 2.*)

built a transmission line from Phoenix to Parker Dam and this line has been connected with the M.W.D. transmission system which carries power from Boulder Dam to the aqueduct pumping plants. Electric energy from Boulder Dam, allotted to the District but not needed at this time, is now being brought down the M.W.D. transmission lines to the Gene Pumping plant and then switched over to the Phoenix area.

Revenue from the sale of this power is being credited to the District. At the present time this power load amounts to approximately 25,000 kilowattes, for which the Metropolitan Water District is being credited with about $35,000 per month. The purchasers of this power are the Salt River Valley Water Users' Association and the Central Arizona Light and Power Company.

With the addition of the Tucson and Coolidge Dam areas a total of 60,000 kilowatts of power may be used by the Arizona consumers, although this increased demand may not be met until the Parker Dam plant is placed in operation.

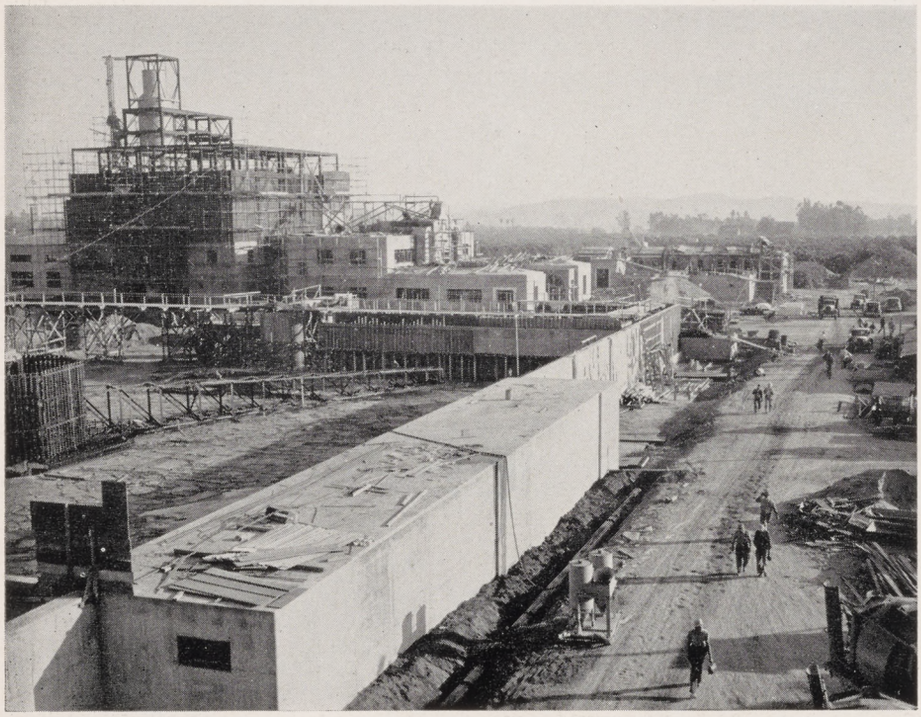
At the time that it built the Phoenix transmission line, the Government (Reclamation Bureau) also constructed a power line from Parker Dam to the Gila River Irrigation Project which will serve an area in Arizona east of Yuma. Electric power for this project will be required for pumping purposes, and the transmission line is not energized at the present time. It is understood that the negotiations between the Government and the Imperial Valley Irrigation District contemplate the delivery of power via the Gila power line.



Concrete is placed in rings, over a gridwork of reinforcing steel bars, to form the floor of one of the settling basins at the water softening and filtration plant.

To meet the present power demands, the Government is building a plant at Parker Dam which will have a capacity of 75,000 kilowatts—three generators, each with a capacity of 25,000 kw. However, because of the further increased demand for power, it is now understood that the Reclamation Bureau is giving serious consideration to the installation of a fourth generator—thus bringing the plant to its full capacity of 100,000 kilowatts during the initial construction period.

Under its agreement with the Government, the District is responsible for the cost of its share of the construction and operation of Parker Dam power plant. At the present time, however, the Federal Government has advanced all funds for the construction of the plant, and the District's obligation will be met by credits from the sale of power supplied by generators belonging to the District.



This recent picture illustrates the progress that is being made on the construction of the headhouse, administration building, and other features of the water softening plant near La Verne.

Distribution

(*Continued from Page 3.*)

On west of the tunnel, Artukovich Bros., contractors for Schedule 31CI and 32CI, began excavation for the Santa Monica delivery structure during the week ending September 21.